Supplementary Material

Identification of polymorphisms in TYRP1, DCT and RAB38 genes and their association with coat color in alpacas

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**Supplementary Materials**- Table 2S. Primers were used to amplify the coding region of *TYRP1*, *DCT* and *RAB38* genes, 5' and 3’ regions.

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| **Amplicon** | **Primer** | **Location** |
| AMPL2094061 TYRP1 | Fw: GGACATTTAAAACAATGACCTTGAGAAGTT  Rv: CACGGTTCTTCAACAGGACATG | 6744623,6744653  6744966,6744988 |
| AMPL2094063 TYRP1 | Fw: AAAAGCAGGGTCAAGAAGGTGT  Rv: CTTTCCAGCTTGATTTTCACGTGT | 6745210,6745232  6745326,6745350 |
| AMPL2094064 TYRP1 | Fw: CTGGAGAATACGTCCAGTGCTT  Rv: GCTTTGGTGAAGTGGATTTCTCTCA | 6743188,6743210  6743534,6743559 |
| AMPL2094066 TYRP1 | Fw: TCAGATTTCCTAGGGAAACATTTTCTGTG  Rv: TAAGTTCCAAATGACATCGAGAATTCTGAA | 6740391,6740420  6740728,6740758 |
| AMPL2094069 TYRP1 | Fw: AGTTTAAGTGTGTCACATGCTTAGCT  Rv: TGGGAAAAATTGTTTCCCAATATCATCAC | 6734181,6734207  6734526,6734555 |
| AMPL2094070 TYRP1 | Fw: GGCTAAGCTGAAAACTACTAGAAATGTGA  Rv: GTGAGTATTGAAAGTGGATTTTTACGGTG | 6729091,6729120  6729404,6729433 |
| AMPL2094072 TYRP1 | Fw: GCCTACTTACGTATTTGAATCAGGGA  Rv: GTGGCATATTCTCCTCTGCATTAGT | 6727063,6727089  6727404,6727429 |
| AMPL2094062 TYRP1 | Fw: TCCACAGTTGTATCCTGAGAAATTGC  Rv: GAATGGAAGCCTGGAAACTCCT | 6744930,6744956  6745242,6745264 |
| AMPL2094065 TYRP1 | Fw: TACCTGTGCCACGTGAGAAATG  Rv: TGCTTAACGATTATTTAGGCTCATTCTCT | 6743502,6743524  6743845,6743874 |
| AMPL2094067 TYRP1 | Fw: CTTTGGGCAACACATTTAGTCTCTTTAC  Rv: CTGGAGAGAACTAACAGAGACAGACT | 6740690,6740718  6741038,6741064 |
| AMPL2094068 TYRP1 | Fw: GGATTGAACCCAGTCTGGGTTT  Rv: TGTCTTTCAGTGTTCATGTTATGTAGACAA | 6736598,6736620  6736914,6736944 |
| AMPL2094071 TYRP1 | Fw: TGGCTATAAGGGTAACACATTTGCTT  Rv: GGGCTGCTGTAGTGAAACTTTTT | 6729368,6729394  6729718,6729741 |
| AMPL2094073 TYRP1 | Fw: GTAAGTCAATCAGTTATTTTTCAGCCATGT  Rv: TACATTTAGGGTGTCCAATTGTGGTT | 6727364,6727394  6727691,6727717 |
| AMPL2094166 DCT | Fw: CTCGAGAGTGGAAGCCAAGGAGA  Rv: GAACTTCCTTGGCCACTGTTCT | 1921241,1921264  1921566,1921588 |
| AMPL2094168 DCT | Fw: GCAGCATGGACTCCATTTCGTA  Rv: GAAGGGTCAAGGAGTGGACATTC | 1929731,1929753  1930065,1930088 |
| AMPL2094170 DCT | Fw: CATTGCTTTCAGAGAGAGAAATGACAA  Rv: AGGGCATGCCTGGTCATTTAAT | 1932350,1932377  1932700,1932722 |
| AMPL2094172 DCT | Fw: CCATGATTATGACTTTAATTGGTTTGCTGA  Rv: GCTTTCCTTCCAGTTCGTCACA | 1934852,1934882  1935172,1935194 |
| AMPL2094175 DCT | Fw: CCCATTTCATTTTTGAGAAAGCTCCA  Rv: GGTCTTGGTTTCCACTAAAAAGAAAGAAAA | 1943740,1943766  1944083,1944113 |
| AMPL2094167 DCT | Fw: GGTCCTTACGTCCTGCGAAA  Rv: CAATCCTATCTAACCAGCTCAAGAATCC | 1921535,1921555  1921682,1921710 |
| AMPL2094169 DCT | Fw: GTGCGAGCAGAAGAAACCACTG  Rv: GAACTTGCCTGAAAGTACTTCCCA | 1930033,1930055  1930342,1930366 |
| AMPL2094171 DCT | Fw: GCTATATGTTTGGTGCAGACCCATA  Rv: CCAACATGCATGAGGAACAGGA | 1932631,1932656  1932977,1932999 |
| AMPL2094174 DCT | Fw: CCTACAACAGAGCTTCCCACTT  Rv: ACATCCATGGTTCACACAGAGAATAAA | 1936522,1936544  1936869,1936896 |
| AMPL2094176 DCT | Fw: TACATGTGGAAGGCAAACTGGT  Rv: CAAAGCTCTCCAACTAAAGGAAGAAC | 1946469,1946491  1946817,1946843 |
| AMPL2093869 RAB38 | Fw: TCGCCCTCCTGGAGTCTCT  Rv: GTGCGAGGAGAAGTTCTGGT | 16449624,16449643  16449883,16449903 |
| AMPL2093870 RAB38 | Fw: GGGCAAGACCAGCATCATCAA  Rv: GTCTCCCACTTGGCCTGTAAG | 16449852,16449873  16450063,16450084 |
| AMPL2093871 RAB38 | Fw: ATATGTGGCTAGTGGGATACTGTATTAAC  Rv: TGTCACTGCTTCAAATGTGGCT | 16471961,16471991  16472313,16472335 |
| AMPL2093872 RAB38 | Fw: GGGTGCCTTCATTGTCTTCGAT  Rv: GGAACTGTAAGTCACTAAACGAACACATAT | 16472281,16472303  16472599,16472629 |
| AMPL2093878 RAB38 | Fw: GTGGCAGACGGCAATTATGAAC  Rv: GGGAGAACAGTTTCGTTAGTCAACA | 16505339,16505361  16505686,16505711 |
| AMPL2093879 RAB38 | Fw: TCTCATATAGGTGTCTGCTACAGCA  Rv: GCTTGCTATTTCTCTTATAGGAAAGGTACA | 16505651,16505676  16505994,16506024 |